

Case 3400***Hybosorus illigeri* Reiche, 1853 (Insecta, Coleoptera): proposed conservation by giving it precedence over *Hybosorus roei* Westwood, 1845**

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Abstract. The purpose of this application, under Article 23.9.3 of the Code, is to conserve the specific name *Hybosorus illigeri* Reiche, 1853 for a well-known, widely distributed scarabaeoid beetle (family HYBOSORIDAE). The name is threatened by the senior subjective synonym *Hybosorus roei* Westwood, 1845, which after 1899 has been used twice by Ádám (1994, 2003). Therefore, precedence of the name *Hybosorus illigeri* Reiche, 1853 is proposed. Two unused senior subjective synonyms, *Hybosorus pinguis* Westwood, 1845 and *Hybosorus carolinus* LeConte, 1847, are considered nomina oblita.

Keywords. Nomenclature; taxonomy; HYBOSORIDAE; *Hybosorus illigeri*; *Hybosorus roei*; *Hybosorus pinguis*; *Hybosorus carolinus*; scarabaeoids.

1. In 1803, Illiger (1803, p. 210) described the widespread *Scarabaeus arator*, the neotype of which is in the collection of the Entomological Institute of the University of Lund, Sweden (Landin, 1964, p. 136). MacLeay (1819, p. 120) subsequently erected the genus *Hybosorus* for this species. However, as Reiche (1853, p. 87) realized, *Scarabaeus arator* Illiger is a junior primary homonym of *Scarabaeus arator* Fabricius, 1775. Reiche proposed the substitute name *Hybosorus illigeri* for *Scarabaeus arator* Illiger. Under Article 60.3 of the Code, the substitute name takes the date of its own publication and must compete for priority with any synonym recognized later.

2. A few authors (LeConte, 1862; LeConte & Horn, 1883; Quedenfeldt, 1884; Endrödi, 1957, 1959, 1962, 1968, 1970, 1973; Petrovitz, 1972; Baraud, 1977, 1985; Paulian & Baraud, 1982) have ignored the homonymy of *Scarabaeus arator* Fabricius and *Scarabaeus arator* Illiger and have continued to use *Hybosorus arator* Illiger as a valid name. This is obviously incorrect.

3. Reiche (1853) also synonymized *Hybosorus laportei* Westwood, 1845 (p. 440) and *Hybosorus thoracicus* Westwood, 1845 (p. 440) with *Scarabaeus illigeri*. However, *Hybosorus laportei* is now considered a valid species (Kuijten, 1983, p. 22), albeit partially sympatric with *Scarabaeus illigeri*, with *Hybosorus thoracicus* a

synonym. The problem is further complicated as subsequently three other names, all of which predate *Scarabaeus illigeri*, have been synonymized with *Scarabaeus illigeri*: *Hybosorus roei* Westwood, 1845 (p. 440) by Arrow (1912, p. 36); *Hybosorus pinguis* Westwood, 1845 (p. 440) by Endrödi (1957, p. 45); and *Hybosorus carolinus* LeConte, 1847 (p. 84) by LeConte (1862, p. 127). This arrangement of synonyms (and other post-1853 synonyms) is recognized as valid in the most recent taxonomic treatment of the genus (Kuijten, 1983) and in the most recent checklist of the family (Ocampo & Ballerio, 2006, p. 191). Therefore, *Hybosorus roei*, *Hybosorus pinguis* and *Hybosorus carolinus* strictly should take precedence over *Scarabaeus illigeri* (Articles 23.3.5 and 60.2 of the Code – Invalid names with synonyms).

4. The senior synonym *Hybosorus roei* remained unused until Ádám (1994, p. 9; 2003, p. 132) used it as the valid name of the species. We accept the view adopted by Krell et al. (2006) that Ádám's lists are more than 'lists of names' and are lists of taxa containing information about the distribution of the species in Hungary, thus being valid for determining usage.

5. However, most authors since 1853 have referred to the species as *Scarabaeus illigeri* in taxonomic treatments, check lists, phylogenies, faunistic lists, identification keys and notes about its distribution, biology, physiology and parasites (e.g. Lacordaire, 1856; Boheman, 1857; Harold, 1871; Lansberge, 1882; Péringuey, 1892, 1901; Brancsik, 1893; Kolbe, 1912; Benderitter, 1914; Cartwright, 1934; Müller, 1939; Paulian, 1944, 1978; Loding, 1945; Panin, 1957; Derwesh, 1965; Ritcher, 1966; Howden, 1970; Woodruff, 1973; Alfieri, 1976; Kuijten, 1980, 1983; Masters, 1980; Allsopp, 1984; Nel & Scholtz, 1990; Rozas et al., 1991; Arnold, 1992; Crocker et al., 1992; Thomas, 1993; López-Colón et al., 1996; Morón, 1996, 2003; Agoiz Bustamante, 1998, 2001; Morón et al., 1998; Deloya, 2000; Buss, 2002, 2006; Jameson, 2002; Ocampo, 2002; Weeks et al., 2003; Grebennikov & Scholtz, 2004; Grebennikov et al., 2004; Morales et al., 2004; Dupuis, 2005; Delgado & Márquez, 2006; Král & Löbl, 2006; Ocampo & Hawks, 2006), as well as numerous web sites.

6. Because the further usage of the name *H. roei* Westwood, 1845 would cause confusion and instability in nomenclature and ecology, we propose that under Article 23.9.3 of the Code the specific name *H. illigeri* be given precedence over that name, whenever they are considered synonyms. This solution is similar to that proposed by Allsopp (1982) in an application to the Commission, and similar to that advocated by Woodward (1973) and Ocampo (2002). Allsopp's proposal was complicated by the re-establishment of *H. laportei* Westwood, 1845 as a valid species and the case lapsed. Given the use of *H. roei* by Ádám (1994, 2003), the case does not meet both requirements of Article 23.9.1 and a ruling by the Commission is necessary.

7. As neither *H. pinguis* nor *H. carolinus* have been used as a valid name after 1899, and *H. illigeri* has been used as the taxon's valid name in at least 25 works published by at least 10 authors in the immediately preceding 50 years and encompassing a span of not less than 10 years (see list in paragraph 5), *H. pinguis* and *H. carolinus* are nomina oblita.

8. Although we believe that the synonymy of Kuijten (1983) is correct, there is always potential, particularly since *illigeri* was described from Portugal and *roei* from India, that *roei* and *illigeri* are distinct taxa. If *roei* is suppressed, this would necessitate a new name if *roei* was shown to be distinct from *illigeri*.

9. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to give the specific name *illigeri* Reiche, 1853, as published in the binomen *Hybosorus illigeri*, precedence over the name *roei* Westwood, 1845, as published in the binomen *Hybosorus roei*, whenever the two are considered to be synonyms;
- (2) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *illigeri* Reiche, 1853, as published in the binomen *Hybosorus illigeri*, with the endorsement that it is to be given precedence over the name *roei* Westwood, 1845, as published in the binomen *Hybosorus roei*, whenever the two are considered to be synonyms;
 - (b) *roei* Westwood, 1845, as published in the binomen *Hybosorus roei*, with the endorsement that it is not to be given priority over the name *illigeri* Reiche, 1853, as published in the binomen *Hybosorus illigeri*, whenever the two are considered to be synonyms.

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Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., c/o Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).